

In re Patent Application of:

AMMAR

Serial No. **09/862,982**

Filing Date: **May 22, 2001**

In the Claims:

1. (CURRENTLY AMENDED) A microwave monolithic integrated circuit (MMIC) package comprising:
a single MMIC including ~~one or more~~ a plurality of pads forming chip input and output pads and DC pads;
a base plate that is matched as to its coefficient of thermal expansion (CTE) with the MMIC;
a solder preform contained on the base plate, said MMIC being mounted on the solder preform; and
a chip cover having openings and covering the MMIC to form a MMIC package that can be automatically picked and placed, wherein the base plate and chip cover are configured with respective portions that engage each other and such that ~~any pads~~ the chip input and output and DC pads on said MMIC are directly exposed to atmosphere through openings of the chip cover for wire and ribbon bonding ~~on an exterior circuit board without interconnects attached to the pads on the MMIC,~~ wherein the base plate and MMIC are secured together by a solder flow process from said solder preform.

2. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 1, wherein said base plate is formed from one of copper tungsten (CuW) or aluminum silicone (AlSi) alloy.

3. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 1, wherein said base plate is about 10 to about 15 mil thick.

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4. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 1, wherein said chip cover is formed of plastic.

5. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 1, wherein said solder preform is formed from a gold-tin alloy.

6. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 1, wherein said solder preform is about 1 to about 2 mil thick.

7. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 1, wherein said base plate and chip cover are secured to each other by the solder preform during a solder flow process.

8. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 1, wherein said base plate includes side rails that engage said chip cover.

9. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 1, wherein said chip cover includes overlap rails that engage said chip cover.

10. (CURRENTLY AMENDED) A microwave monolithic integrated circuit (MMIC) package comprising:

a single MMIC including ~~one or more~~ a plurality of pads forming chip input and output pads and DC pads;

a substantially rectangular configured base plate

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that is matched as to its coefficient of thermal expansion (CTE) with the MMIC, said base plate including opposing side rails that extend along a portion of formed edges;

a solder preform contained on the base plate, said MMIC being mounted on the solder perform ~~wherein the base plate and MMIC are secured together by a solder flow process from the solder preform;~~ and

a chip cover having openings and covering the MMIC to form a package that can be automatically picked and placed, and secured on said side rails of said base plate, and having overlap legs extending down to said base plate, wherein the base plate, side rails, chip cover and overlap legs are configured such that ~~any pads~~ the chip input and output and DC pads on said MMIC are directly exposed to atmosphere through openings of the chip cover for wire and ribbon bonding ~~on an exterior circuit board without interconnects attached to the pads on the MMIC.~~

11. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 10, wherein said base plate is formed from one of copper tungsten (CuW) or aluminum silicon (AlSi) alloy.

12. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 10, wherein said base plate is about 10 to about 15 mil thick.

13. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 10, wherein said solder preform is about 1 to about 2 mil thick.

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14. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 10, wherein said base plate and MMIC are secured together by a solder flow process with said solder preform.

15. (ORIGINAL) A microwave monolithic integrated circuit package according to Claim 10, wherein said base plate and top cover are secured together by a solder flow process with said solder preform.

Claims 16-20 (PREVIOUSLY CANCELLED)